

SMALL, NOT INSIGNIFICANT: A SPECIFICATION FOR A CONSERVATION PAMPHLET BINDING STRUCTURE

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Introduction

The pamphlet binding is often regarded as an insignificant or ephemeral book structure, which has received little attention over the years in the professional bookbinding literature. An attitude prevails that a bookbinder capable of executing sophisticated and detailed bookbindings need only apply common sense to successfully execute a pamphlet binding. For this reason, little work has been done to examine the historical prototypes of pamphlet binding structures, nor, in fact, has the term "pamphlet binding" been adequately defined.

This investigation grew out of a need to develop a specification for a durable, non-damaging pamphlet binding that could be easily produced in an in-house conservation facility. The search for a solution to this problem led to an investigation of the historical traditions of pamphlet binding. The result is an economical and aesthetically pleasing design specification for the binding of pamphlets, when binding is required,¹ which conforms to the requirements of both rare and non-rare circulating pamphlet material.

Definition of terms

The term "pamphlet" is derived from the main character of a 12th century love poem, Pamphilus seu de Amore, (Pamphilus, or Concerning Love). The poem owed much of its popularity to its comedic characterization of an old bawd named Pamphilus, and the term came to be associated with small pieces of popular writing.² The New World of Words defined a pamphlet in 1706 as "a little stitch'd book."³ Johnson's Dictionary in 1755 defined it as "a small book, properly a book sold unbound, and only stitched."⁴ In current usage, the 1971 edition of The Oxford English Dictionary defined a pamphlet as "always (at least in later usage) unbound, with or without paper covers,"⁵ posing an apparent contradiction when applied to the combined term "pamphlet binding." Curiously, even the binding of telephone directories is considered pamphlet binding within the printing industry.⁶

To clarify the issue for the purposes of this paper, a pamphlet binding will be defined as: *A thin book composed of between one and three folded sections, linked together by a sewing structure and bound as a permanent enclosure.* This definition is broad enough to include the Nag Hammadi Codices, (though in fact these are early manuscript books), which contain structural components pertinent to this discussion.

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The illustrations are drawn by Shawn and Christopher Becker.

Historical Overview

Unbound Pamphlets

The pamphlet contributed significantly to the rapid spread of knowledge which followed the invention of printing due to its availability, timeliness and the quantity in which it was produced.⁷ These often beautiful (if slapdash) Renaissance tracts were often issued unceremoniously unbound in folded sheets, though sometimes stitched (i.e. side sewn). As early as 1586 trade rules were established in England which limited the stabbing of books to material of less than five sheets decimo sexto. By 1704 a tax was imposed on pamphlets in England which redefined them as "printed matter of up to three sheets, regardless of the format." This tax was revised in 1712 to impose a two shilling duty on pamphlets.⁸

Based on observations made during a 1986 survey at Brigham Young University,⁹ unbound pamphlet material from the period 1547-1648 was frequently stitched using a simple two-hole pattern, although three, four, and five hole patterns were not uncommon. A few pamphlets were seen with stitched patterns consisting of a series of paired, parallel holes. Sewn pamphlets (i.e. through the fold) from the same period were common as well, some with paired holing patterns reminiscent of tacketing.

Wrappers

Simple blue paper wrappers of a utilitarian character seem to have become common by the first third of the 18th century,¹⁰ although the earliest date which this paper came into use has yet to be established. Despite the definition of a pamphlet as unbound, an occasional presentation pamphlet covered in ornate Dutch gilt or marbled paper was produced by the mid-18th century, as well as pamphlets with black paper wrappers for funeral sermons and elegies.¹¹

Typically, a paper wrapper was merely pasted to the pamphlet's spine and tipped to the first and last leaves far enough beyond the shoulder to cover the stitching. Later, a more sophisticated technique was to sew the pamphlet to a plain white wrapper around which was pasted an ornamental sheet, the white sheet functioning as a simple endpaper. This type of pamphlet was occasionally sewn on cord supports which were frayed out between the endpaper and the wrapper. The structural similarity between this style of sophisticated wrapper, and later, simple pamphlet binding styles, suggests that true pamphlet bindings may have evolved from this style of wrapper.

Pamphlet Bindings

Pamphlet bindings seem to have developed as vernacular design, that is, everyday design carried out in a routine way without much conscious thought or formal planning. The style has developed and redeveloped as the need dictated, influenced by craft traditions, functional requirements, and aesthetic preferences. To a large degree pamphlet bindings have been used for material which, at one point at least, has been considered ephemeral, and as such have

consistently been affected by economic constraints. Though elegant pamphlet bindings do exist, the style is, for the most part, a utilitarian covering. None the less interesting for this fact, pamphlet bindings are historically rich in material and structural variations, incorporating a wide range of minute, stylistic refinements.

A surprisingly wide range of pamphlet binding styles and structural components were represented in the collection I surveyed. Though the collection primarily contained printed material from the mid-16th through the 17th century, few of the bindings were contemporary with the pamphlets they housed. In fact, the majority of the bindings (with some notable exceptions) seem to have been produced no earlier than the last quarter of the 18th century. Whether this indicates a historical trend toward the increase of pamphlet binding production at this time, or merely a collection which contains a large proportion of rebound material cannot be answered without further research.

Examples were seen sewn on a variety of sewing supports, including between two and five cords or tapes, as well as thongs of vellum, leather or tawed skin. Both raised and recessed-cord sewing was represented. Pamphlets of two sections or more were sewn all along or two-on. The figure-eight stitch for sewing single section pamphlets through the fold was seen in from two to ten hole variations. One example of tacketing was observed.

Endpaper styles included: wrapping endpapers (for single section pamphlets); folded endpapers tipped to the first and last leaves; endpapers with a hooked guard which wrapped around the first and last section; endpapers with cloth or leather hinges; and a wide variety of decorative, "made" endpapers.

The methods of board attachment seemed to follow historical trends in hand bookbinding. Better quality work had the boards laced on with between two and five supports, sometimes in combination with false bands. Limp vellum styles were represented, occasionally with false laced-in vellum supports. Case work represented the most widely used later style. An interesting early style (for which I have no name) had the sewing tapes glued to the outside of the boards before being covered in full paper. The split board style was represented in the literature but was not observed in this survey.

Covering materials spanned the gamut of historical bookbinding materials including: full vellum, leather, cloth or paper; quarter vellum, leather, or cloth; and cloth or paper sides, including some with vellum tips.

Structural Analysis

Many styles of bookbinding were found to be inappropriate for the pamphlets they housed because they incorporated either a form of endpaper which was tipped to the text, or an adhesive spine lining. A tipped endpaper is a detrimental form of attachment for thin material because the adhesive has the

potential to stiffen and eventually skin the first and last leaves of the text when delamination occurs. Spine lining adhesives pointlessly restrict the openability of thin material and can also prove physically damaging to the pamphlet over time, or when removed.

An example of an inappropriate bookbinding style for pamphlets is the case binding, which is poorly suited to bind thin material. Due to their slim dimensions, pamphlets require no rounding or backing, which eliminates the need for a shoulder or a French joint, and consequently eliminates the pleat (i.e. the French joint) in the hinge of the endpaper. Since the case binding is cased-in in the closed position, it is at rest in that position. On opening, the outside covering material compresses in the hinge, while the endpaper is

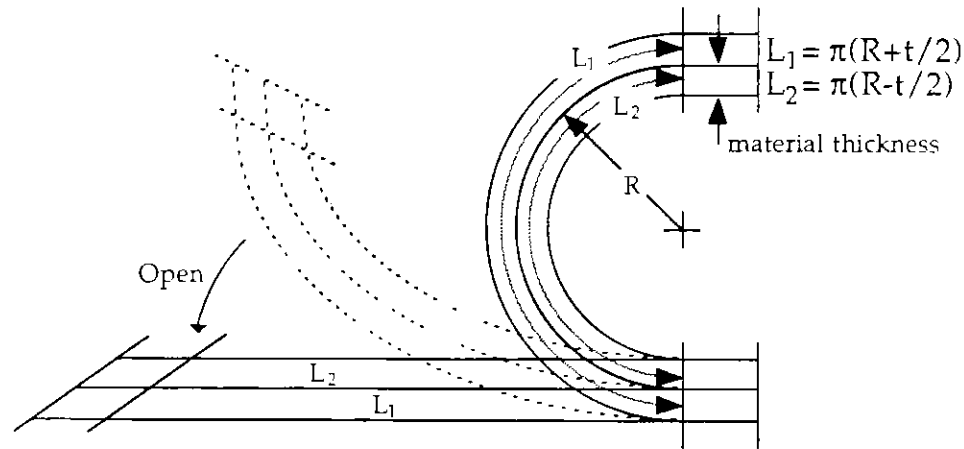


Fig. 1

L2 (endpaper hinge) put in TENSION when opened.
L1 (covering material) put in COMPRESSION when opened.

stretched (Fig. 1). The structure's point of critical wear is in the endpaper hinge, where a lack of flexibility results from the elimination of the endpaper pleat. Despite the lightweight nature of a pamphlet, the hinge in a case binding will eventually fail because the unified parts are not adequately flexible to accommodate the movement of opening.

The case style can be constructed with a spine stiffener which creates an artificial French joint, as described by Diehl¹² in 1936. This concept departs from a binding design which is a reflection of the pamphlet's form, and focuses primarily on the problem of titling a thin spine. If the thin dimensions of a pamphlet are allowed to express its own needs in terms of function, a single hinge design will emerge which allows the boards to open to a single fulcrum point without exerting an excessive amount of stress on the endpaper hinge or on the pamphlet proper.

THE SPECIFICATION

What follows are a set of design specifications which satisfy the criteria for a durable, non-damaging pamphlet binding. This style of pamphlet binding is

appropriate for thin material of one, two, or three sections (Fig. 2). The model attempts to isolate a number of successful components from historical pamphlet

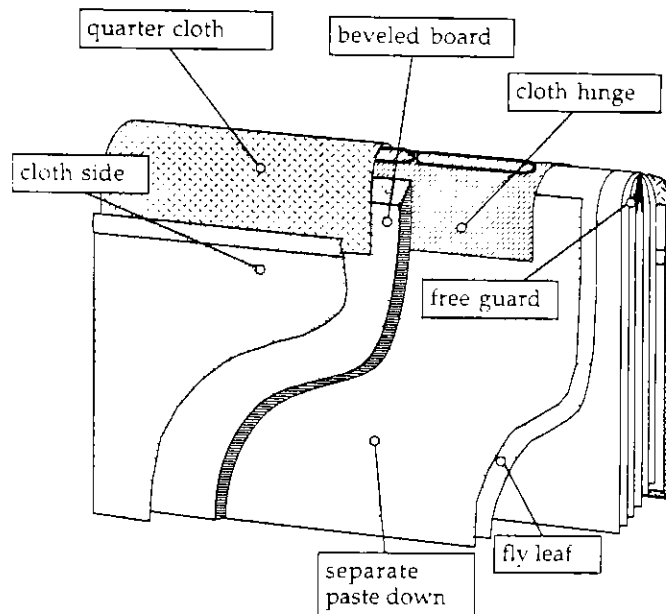


Fig. 2
Silverman pamphlet binding: 1987

binding prototypes, and integrate them into an ideal structure. The design emphasizes the principle of a non-damaging cover to text attachment as

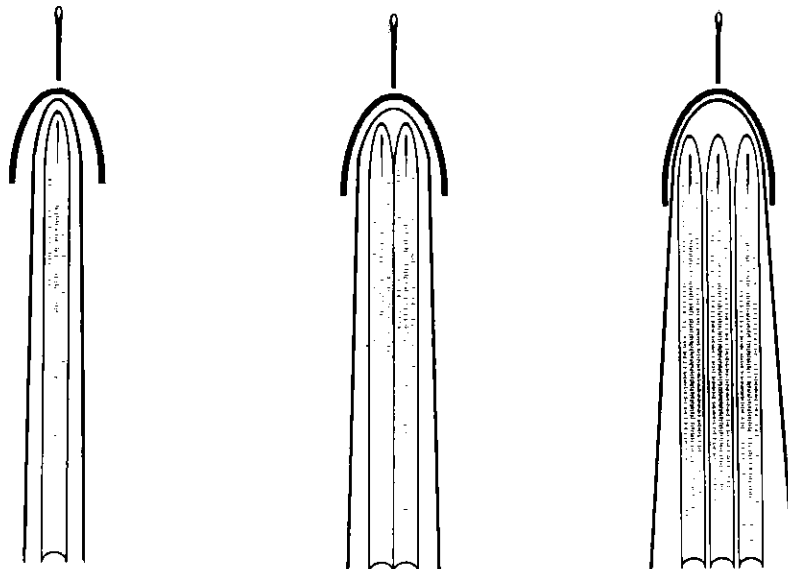


Fig. 3
Cross sectional view of one, two, and three section pamphlets
sewn with wrapping fly leaf and reversed bookcloth hinge.

characterized by the conservation bindings developed to date by Clarkson,¹³ Frost¹⁴ and Espinosa.¹⁵

Endpapers

The endpaper construction is appropriate for single as well as multiple section pamphlets, providing a non-adhesive attachment as well as an alkaline paper barrier between the text and the binding. A simple folded fly leaf is wrapped around the pamphlet, over which is folded a reversed bookcloth hinge (Fig. 3). A separate pastedown is used on the inside of each board to complete the endpaper.

Reversed Bookcloth Hinge

The historic prototype for the reversed cloth hinge seems to be the reversed leather hinges used in the ten intact single-section Nag Hammadi Codices,¹⁶ dated to the last half of the fourth century by John Barns.¹⁷ This collection of bindings fall into two composite structural formats: one in which the tacketing passes through the limp leather cover (Model "A"), and the other in which the tacketing remains sandwiched between the reversed leather hinge and the cover (Model "B") (Fig. 4).

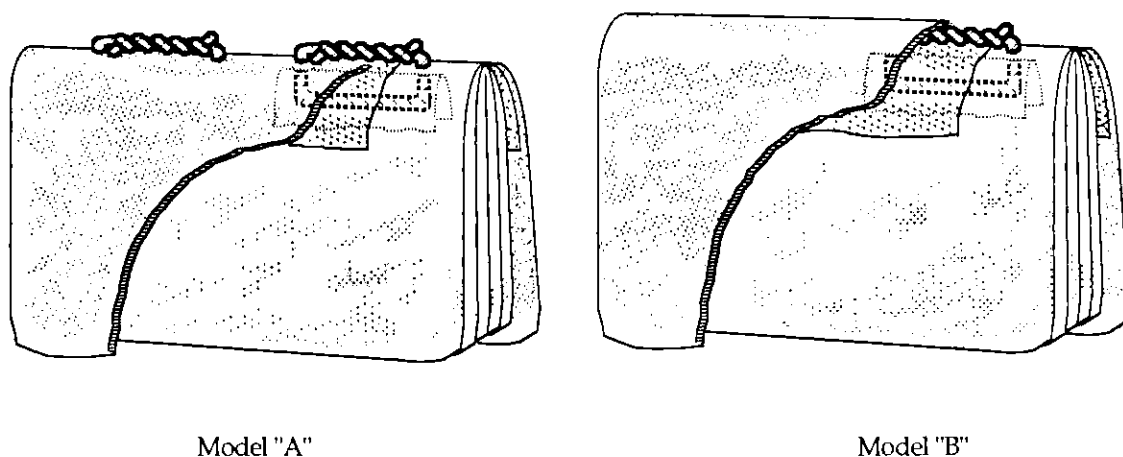


Fig. 4

Nag Hammadi Codices: 4th Century

Model "A": Tackets passing through free guard, reversed leather hinge and limp leather cover.

Model "B": Tackets sandwiched between reversed leather hinge and limp leather cover.

This second structure, while greatly modified, reappeared in the 20th century as the brilliant reversed-V guard pamphlet binding described by Thomas Harrison¹⁸ in 1947 (Fig. 5). The specific technique of incorporating a reversed bookcloth hinge into a pamphlet binding design, as it is applied here, was first described by Pauline Johnson¹⁹ in 1963, and has reappeared most recently in the work of Greenfield,²⁰ and the Archival Products Pamphlet Binder designed by Ogden, Wiesendanger and James.²¹

The reversed bookcloth hinge, as mentioned, wraps around the spine of the pamphlet and is attached with the sewing to form the internal hinge of the binding. This hinge provides the elasticity of cloth at the point of flex between the cover the text. The cloth is chosen to match the bookcloth used for the covering material, both as an aesthetic and a structural feature of this single-hinge binding. Equal flexibility between the internal and external

bookcloth hinges permits them to wear at the same rate while stretching and compressing to accommodate the movement of the boards. The adhesive bond

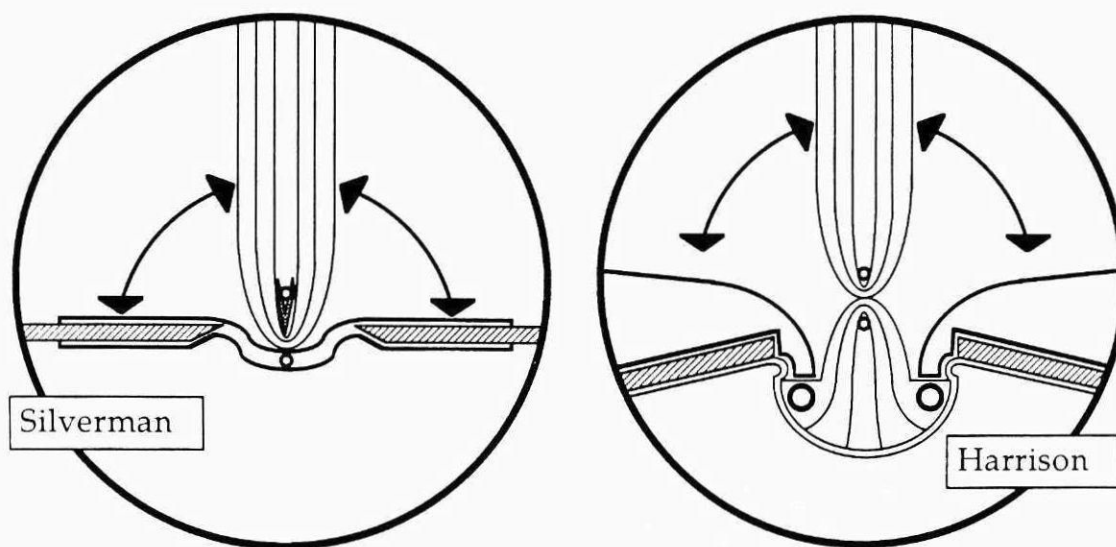


Fig. 5
Comparison of text flexibility in
reversed bookcloth hinge and reversed V-guard styles of pamphlet binding.

between the two layers of cloth allows the laminated hinge to function as an integral unit while permitting the pamphlet unimpaired movement on its fulcrum of sewing thread.

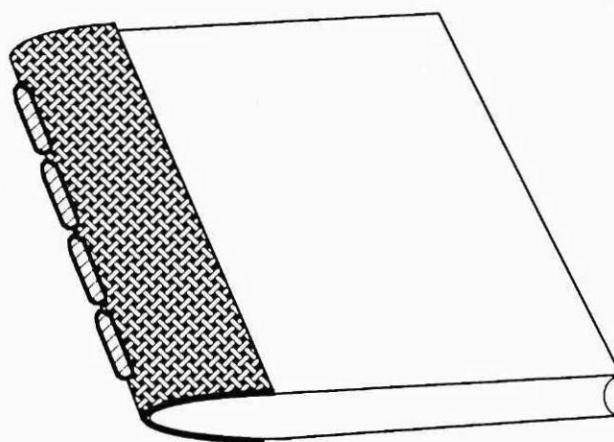


Fig. 6
Reversed bookcloth hinge and wrapping endpaper sewn to one section pamphlet.

The reversed bookcloth hinge (Fig. 6) is cut to the height of the fly leaf and wide enough to allow ease of handling while sewing. The trimmed-out width of the reversed bookcloth hinge once glued to the inside of the boards is equal to the width of the turn-ins. Both the reversed bookcloth hinge and the free guard (when used) are trimmed to their final dimensions after the sewing is completed.

Free Guard

Because this design relies on the sewing to form the cover to text attachment, weakened paper can present a problem. This can usually be overcome by including a free guard in the center of each section to protect the paper from abrasion caused by the sewing thread. The free guard effectively reinforces the fold of the section and distributes the stress of the thread along the entire length of the free guard. The earliest documented precedent for the inclusion of a free guard (in this case leather) is also found in the Nag Hammadi Codices.²² Of the eleven intact bindings recovered in Egypt about 1945 (one composed of four sections, and ten composed of one section), all contained (or showed evidence of) leather free guards in the folds of the sections, included to protect the papyrus texts from the sewing thongs. Two independent "U" shaped tackets were used to sew the single section bindings, with the free guards coming in three varieties: a single free guard extending the length of the section; a pair of free guards, each supporting one tacketed stitch; and three free guards (with evidence of a fourth), each of which supported a single sewing station.

Contemporary free guards should ideally be constructed from folds of thin, flexible, highly tear-resistant material which is as chemically non-damaging to the text as possible. Materials currently being investigated for use as free guards include 3 mil. Tyvek²³ (a spunbonded polyethylene sheet), and a lightweight Gore-Tex barrier²⁴ (a microporous teflon membrane laminated to a nonwoven polyester sheet).

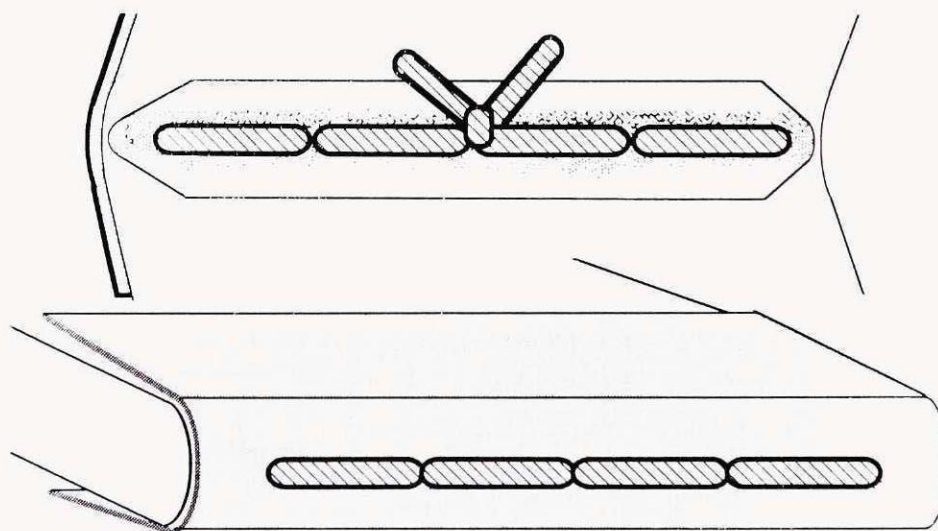


Fig. 7

Sewing structure for one section pamphlet: spine and fold views.

Sewing

The sewing stations at the head and tail of the work must be inset at least the width of the turn-ins, or they will interfere with the turning-in procedure.

The re-use of the original sewing stations is encouraged, however, where these were originally inadequate, a prime consideration must be to properly support the material being sewn.

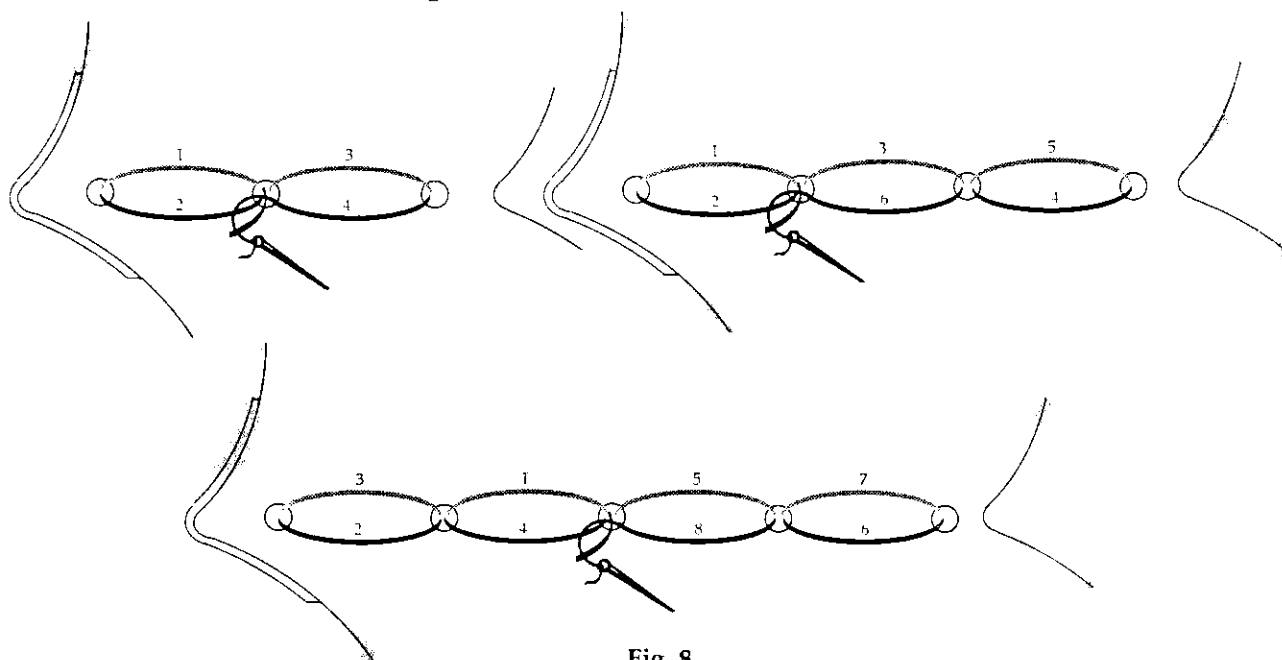


Fig. 8
Schematic sewing pattern for
one section pamphlet: three, four and five station varieties.

The sewing pattern for a pamphlet of one section is typically a figure-eight stitch, sewn all along through the fold using an odd number of stations, five being the most common (Fig. 7). An even number will work equally well, with the slight drawback that the knot will not fall symmetrically in the center of the section. The sewing traditionally begins and ends inside the fold of the section to prevent the knot from showing on the spine of the finished work (Fig. 8). To

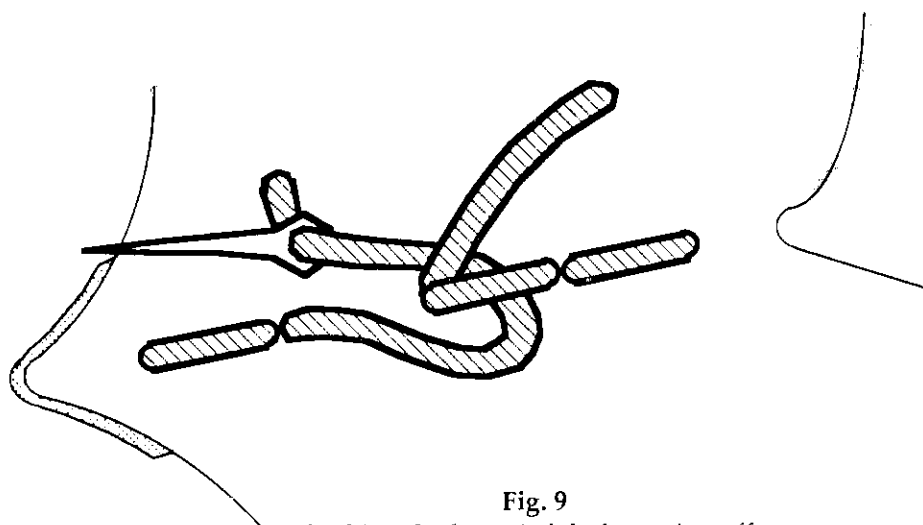


Fig. 9
Linking the last stitch before tying off.

insure that the sewing is taut when completed, the last stitch is linked under the loop created by the first stitch before tying off (Fig. 9). Pulling the ends of the

thread at right angles to the thread's twist will cause the thread to catch on itself, allowing an even tension to be maintained while the square knot is completed.

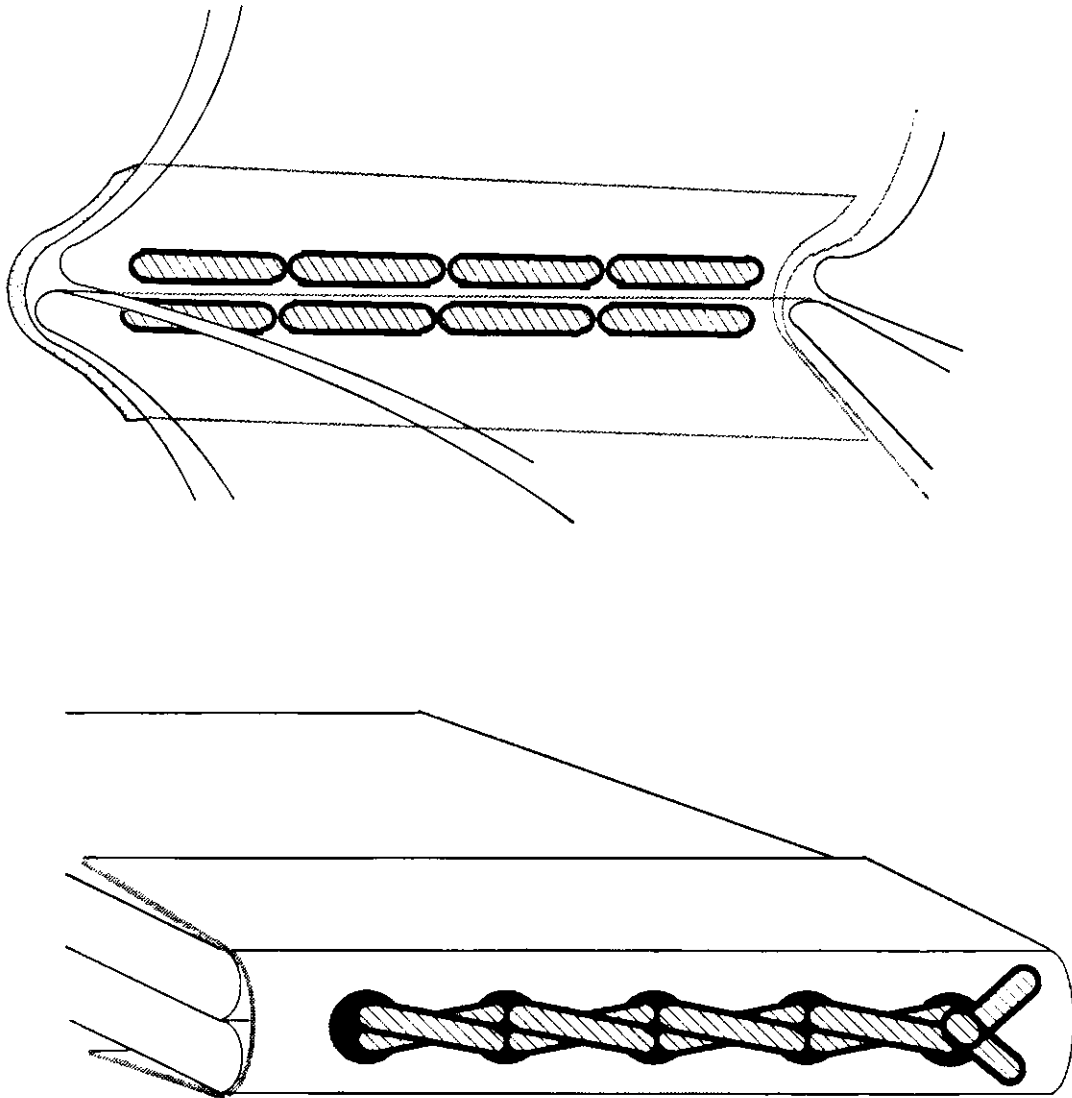
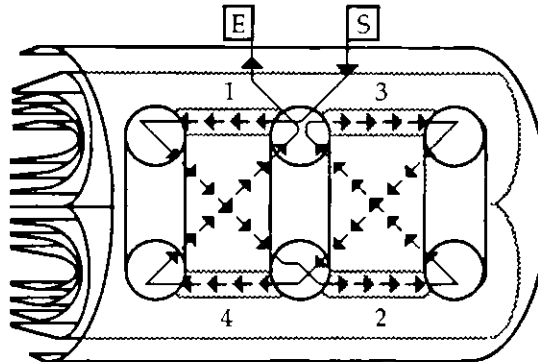
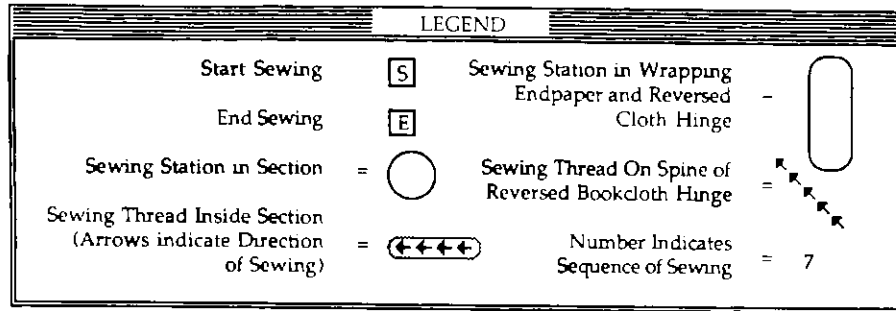
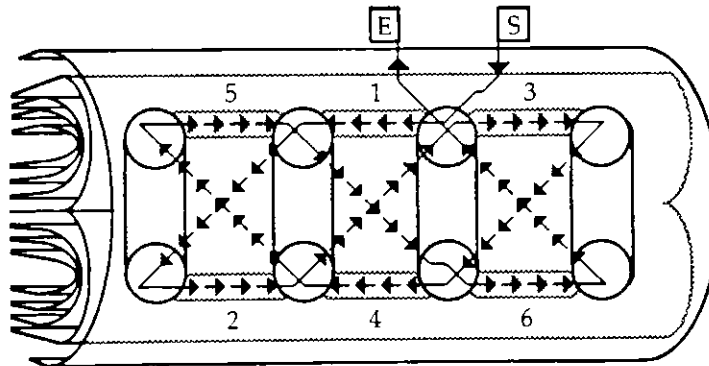


Fig. 10
Sewing structure for two section pamphlet: spine and fold views.

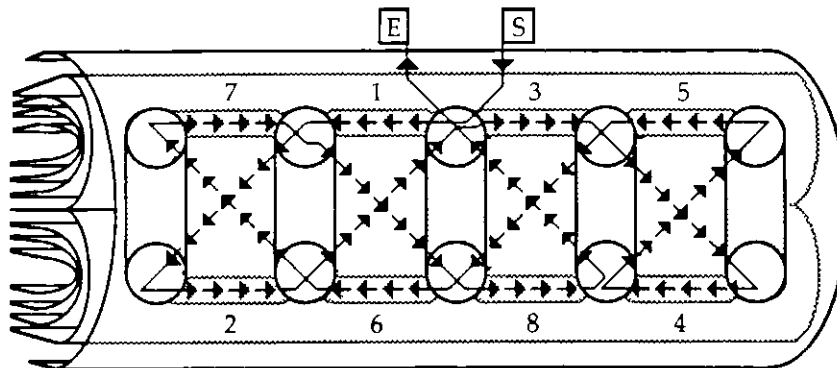
The sewing pattern for a pamphlet of two sections combines a figure-eight stitch with two-on sewing (Fig. 10). The sewing begins and ends on the spine of the reversed bookcloth hinge, alternating between the two sections in a two-on, figure-eight pattern. The sewing alternates between the two sections, sharing



2 SECTIONS / 3 STATIONS



2 SECTIONS / 4 STATIONS



2 SECTIONS / 5 STATIONS

Fig. 11

Schematic sewing pattern for two section pamphlet: three, four, and five station varieties.
For a view of the completed sewing structure, return to Fig. 10.

the same sewing holes through the fly leaf and the bookcloth hinge. The completed pattern when viewed from the spine looks like a crisscrossed version of the figure-eight stitch, while in the folds of each section the pattern appears to be continuous (Fig. 11).

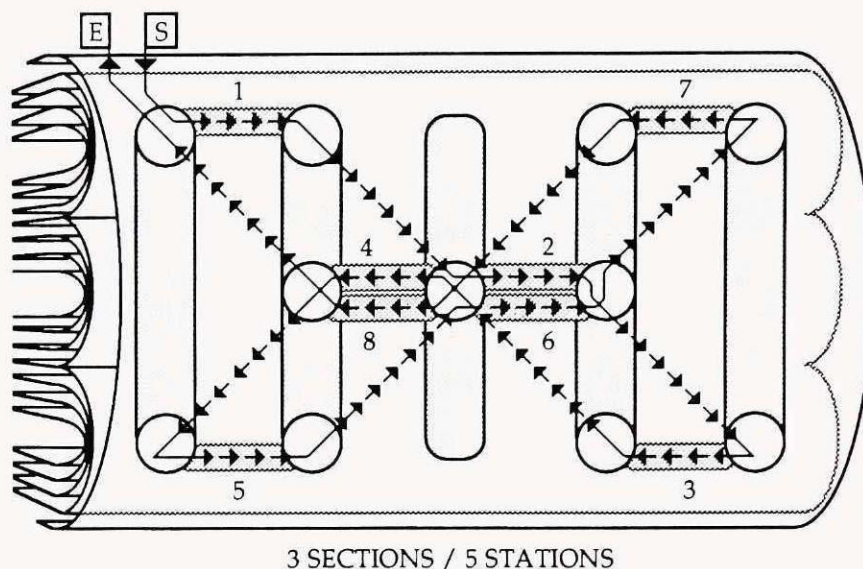


Fig. 12

Schematic sewing pattern for three section pamphlet: five stations.

When a pamphlet is made up of three thin sections, the sewing becomes more difficult to describe, and clearer communication can be achieved visually (Fig. 12). The simple wrapping flyleaf and the reversed bookcloth hinge are again used, this time in conjunction with a three-on style figure-eight pattern. The sewing again begins on the spine of the reversed bookcloth hinge, and climbs or drops (as the case may be) to the next section as each consecutive stitch advances. If the sections are too bulky, the "pamphlet" may have made the vague metamorphosis to the dimensions of a small book, in which case an alternate approach may be warranted.²⁵

Board Shaping and Attachment

A feature which links this binding style more closely to "bound" rather than to "cased" work is that the boards are attached before covering and are covered on the book. The cover to text attachment relies on the lamination of the reversed bookcloth hinge to the boards. After the boards have been cut to size, the spine edge is bevelled to produce a smooth, rounded transition between the boards and the text. The boards are glued to the outside of the reversed cloth hinge with PVA, the distance from the spine edge being approximately equal to the thickness of the pamphlet itself. The placement of the boards establishes the squares of the binding, so their attachment must be handled accurately. A separate waste sheet is used to prevent the adhesive from soiling the endpapers while the reversed bookcloth hinge is glued. If the shape

and placement of the boards is correct, the resultant shape of the spine when viewed as a cross section is parabolic, not saddle-backed or French jointed (Fig. 13). Further shaping of the other three board edges is discretionary.

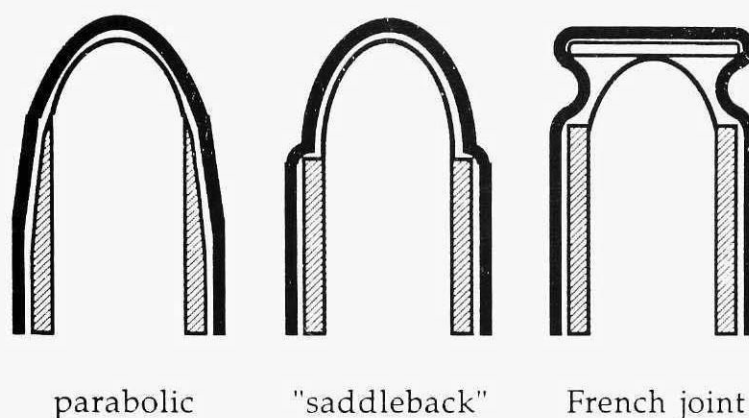


Fig. 13
Cross sectional view of spine shapes of typical pamphlet binding styles.

Covering

The pamphlet is then covered in a strong yet flexible bookcloth²⁶ which matches the cloth of the reversed bookcloth hinge, either as a full or quarter binding. The cloth is turned-in at the head and tail *over* the reversed bookcloth hinge to prevent future delamination at that point, integrally linking the

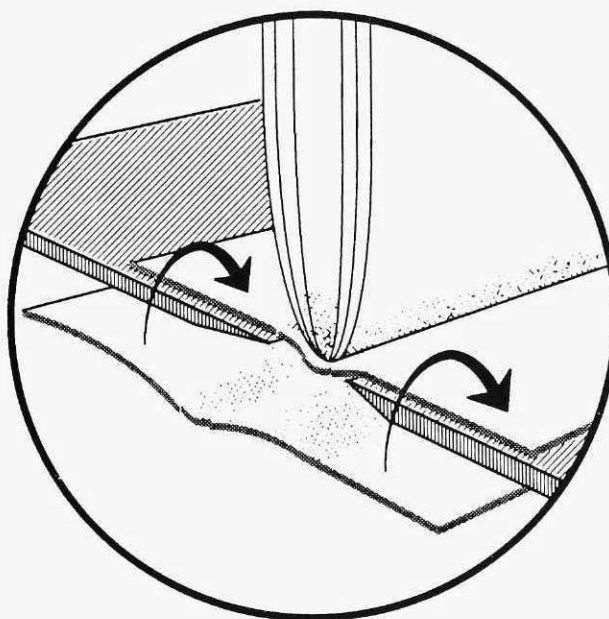


Fig. 14
Turning-in the covering material over the reversed bookcloth hinge.

binding's working components (Fig. 14). The previously considered location of the sewing stations at the head and tail of the pamphlet allow the cloth to be turned-in unobstructed by the sewing thread. Separate pastedowns are attached

to the boards, and the finished pamphlet binding is dried under weights with blotters interleaved between the boards and the text to control warping and to

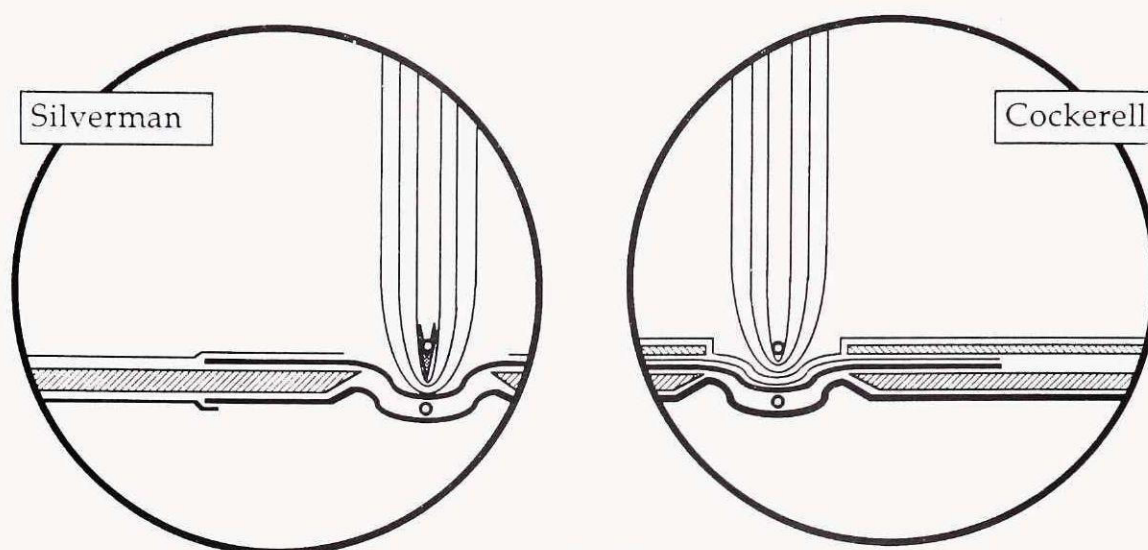


Fig. 15
Comparison of board attachments between
the reversed bookcloth hinge and the split board pamphlet binding styles.

act as a fence. With the cloth sides and pastedowns in place, the binding is structurally similar to the split-board pamphlet binding described by Douglas Cockerell²⁷ in 1901 (Fig. 15).

Titling

The binding is titled using paper labels which are produced with a Macintosh computer and a laser printer.²⁸ This method provides a fast, economical and attractive alternative to gold stamping. Moriki,²⁹ an assorted line of colored Japanese handmade papers, is used because it is flexible, durable, and provides a smooth surface which is compatible with the laser printing process. The software used for the labels (as well as for the graphics in this paper) is a program called "Super Paint,"³⁰ which can be upgraded to include hundreds of fonts of type, and allows for precise manipulation of spacing between lines. The labels are produced in batches of approximately twenty per sheet, the Moriki being cut to the 8 1/2 by 11 inch dimensions required to feed properly through the laser printer. Once printed, the xerographic image is sealed to improve its abrasion resistance with an application of hydroxypropylcellulose (Klucel-g)³¹ dissolved in ethanol, and the finished label is attached to the front cover of the binding with a mixture of paste and PVA.

Pockets and Variations

Occasionally a number of separate parts must be included with a pamphlet which require a pocket. Pockets can be handled in at least two ways, either as a pastedown on the board, or sewn with the text using a hooked guard. A pocket sewn with a hooked guard may also be bound individually (reinforced with a free guard if necessary) to house extremely fragile, rare or historically significant pamphlets, single plates, maps, etc.

In cases where it is necessary to pamphlet bind a limited number of single leaves (such as photocopies), the work of Henry Pedersen³² provides a workable model. Sections are made up of four leaves which are creased to hinge in an alternating pattern along the binding edge, joined with paste, and sewn through the resultant fold (Fig. 16). Another option for single leaves of historical significance is to attach a Japanese paper hinge to the leaf with paste, and sew through the resultant gathering of Japanese paper hinges. A small book of

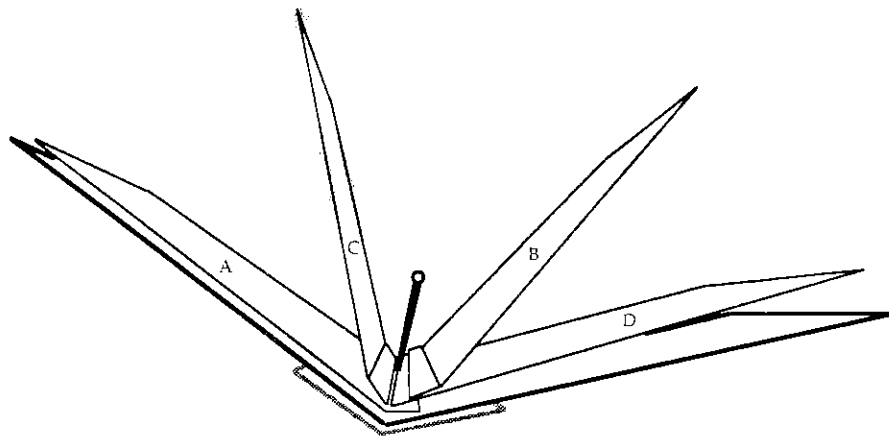


Fig. 16
Single leaves joined as a section for pamphlet binding.

encapsulated leaves can also be hinged individually or folded in conjugate pairs and sewn through the fold to produce an encapsulation pamphlet binding.

Conclusion

In conclusion, the purpose of this paper has been to draw attention to an approach to binding pamphlets (when binding is appropriate) which is non-damaging in terms of the materials and structure used. Too often historically significant pamphlets have been bound as expeditiously as possible using inappropriate techniques such as tipped endpaper attachments, glued up spine folds, stab sewn structures for multiple section pamphlets or unsound materials in general. By examining the history of pamphlet binding structures and synthesizing the components that have proven simple and non-damaging, a bookbinding specification has resulted that has found application in the general collection of the Lee Library of Brigham Young University. This technique has been used successfully by technicians over the past two years, primarily in the Primrose music collection, and has satisfied our need for a durable, easy to produce and aesthetically pleasing pamphlet binding.

ENDNOTES

¹ An eloquent argument which deserves reiteration was recently made by Nicholas Pickwoad ("The Conservation of Ephemeral Bindings," in *The Institute of Paper Conservation, 10th Anniversary Conference: New Directions in Paper Conservation, 14-18 April 1986*) proposing a conservative approach "which require(s) as little disturbance as possible" when weighing appropriate treatment options for ephemeral pamphlet material.

² Eric Partridge, *Origins; A Short Etymological Dictionary of Modern English* (New York: Macmillan, 1966), 466.

³ Edward Phillips, *New World of Words*, 1706 ed., s.v. "Pamphlet." Quoted in David Foxon, "Stitched Books," *The Book Collector* 24, no. 1 (Spring 1975): 113.

⁴ Samuel Johnson, *A Dictionary of the English Language*, 1755 ed., s.v. "Pamphlet."

⁵ *The Oxford English Dictionary*, 1961 ed., s.v. "Pamphlet."

⁶ Victor Strauss, *The Printing Industry* (Washington, D. C.: Printing Industries of America Inc., 1967), 618.

⁷ Elizabeth L. Eisenstein, *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-Modern Europe* (Cambridge: Cambridge University Press, 1979), 1:133n, 174, 261.

⁸ David Foxon, "Stitched Books," *The Book Collector* 24, no. 1 (Spring 1975): 112.

⁹ The survey was conducted between January and November, 1986, and included approximately 3000 pamphlets from the French Political Pamphlet Collection, the Mazarinade Collection, and random samplings from the rare book collection of Brigham Young University.

¹⁰ Foxon, 114.

¹¹ *Ibid.*, 113.

¹² Edith Diehl, *Bookbinding: Its Background and Technique*, vol. 2. (New York: Rinehart and Company, Inc., 1946), 262-63.

¹³ Christopher Clarkson, *Limp Vellum Binding and Its Potential as a Conservation Type Structure for the Rebinding of Early Printed Books: A Break with 19th and 20th Century Rebinding Attitudes and Practices* (Hitchin, Hertfordshire, England: The Red Gull Press, 1982). First published under the same title in *Preprints*, 4th Triennial Meeting of the International Council of Museums, Committee for Conservation, Venice, 13-18 October 1975 (Paris: The Committee, 1975), 3:1-15.

¹⁴ Gary Frost, "Historical Paper Case Binding and Conservation Rebinding," *The New Bookbinder* 2 (1982): 64-67.

¹⁵ Robert Espinosa, "Specifications For a Hard-Board Laced-In Conservation Binding," *The Book And Paper Group Annual* 2 (1983): 25-49.

¹⁶ James M. Robinson, ed., *The Facsimile Edition of the Nag Hammadi Codices* (Leiden, Netherlands: E. J. Brill, 1972-). Published under the auspices of the Department of Antiquities of the Arab Republic of Egypt, in conjunction with the United Nations Educational, Scientific and Cultural Organization.

¹⁷ John W. B. Barns, "Greek and Coptic Papyri From the Covers of the Nag Hammadi Codices: A Preliminary Report," in *Essays on the Nag Hammadi Texts: in Honor of Pahor Labib*, Nag Hammadi Studies 6 (Leiden, Netherlands: E. J. Brill, 1975), 9-17.

¹⁸ Thomas Harrison, "A Method of Binding a Book in One Section," *Paper and Print* 20, no. 2 (Summer 1947): 122-26. (Fig. 17).

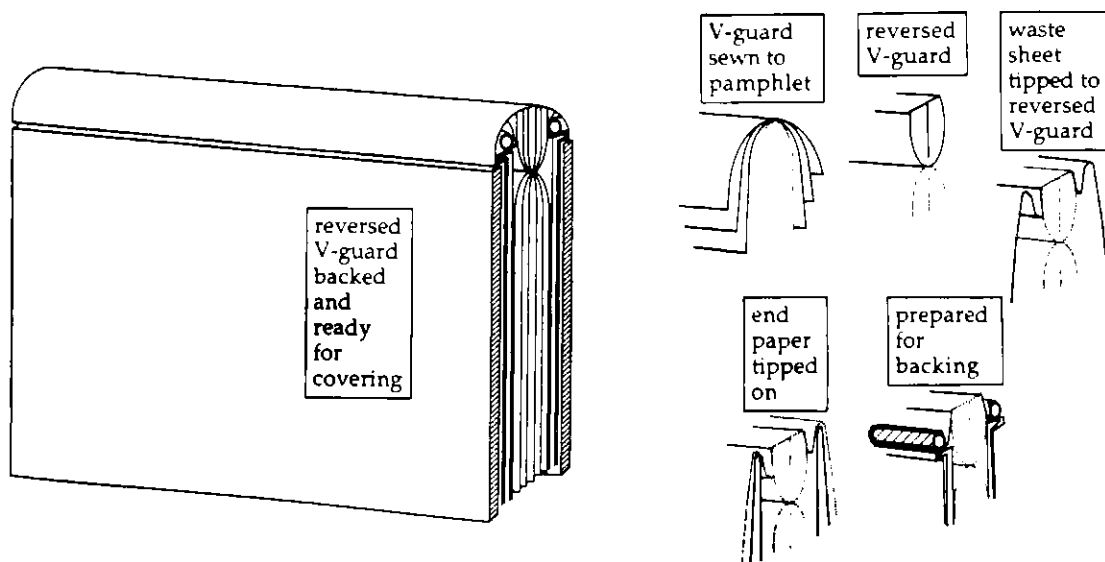


Fig. 17
Harrison binding for one section book: 1947

¹⁹ Pauline Johnson, *Creative Bookbinding* (Seattle, WA: University of Washington Press, 1963), 122-23.

²⁰ Jane Greenfield, *Books: Their Care and Repair* (New York: The H. W. Wilson Co., 1983), 108-28.

²¹ Library Binding Service Archival Products, *Pamphlet Binders* (Des Moines, IA: Library Binding Service Archival Products, 1987). Brochure published to promote the pamphlet binder developed by Barclay Ogden, Hans Wiesendanger and Fritz James.

²² Robinson.

²³ There has been little research done on Tyvek for conservation applications to date. Tyvek is manufactured by E. I. duPont de Nemours and Co., and is available through Transilwrap Co. (4199 "A" Oneida Street, Denver, CO 80216) and other plastics distributors.

²⁴ The lightweight Gore-Tex barrier is a laminate of expanded PTFE (polytetrafluoroethylene) and a nonwoven polyester, which is chemically inert and nonabrasive. It is manufactured by and available from W. L. Gore and Associates, Inc. (100 Airport Road, P. O. Box 1550, Elkton, MD 21921).

²⁵ When a pamphlet is made up of three or more thick sections, an unsupported link stitch may be an appropriate sewing structure. The endpaper used is a single hooked fly leaf combined with a thin piece of bookcloth to provide a cloth joint. Both a hooked fly leaf and bookcloth hinge are wrapped around the first and last sections and sewn on with the text (Fig. 18). A separate pastedown is used on the inside of each board.

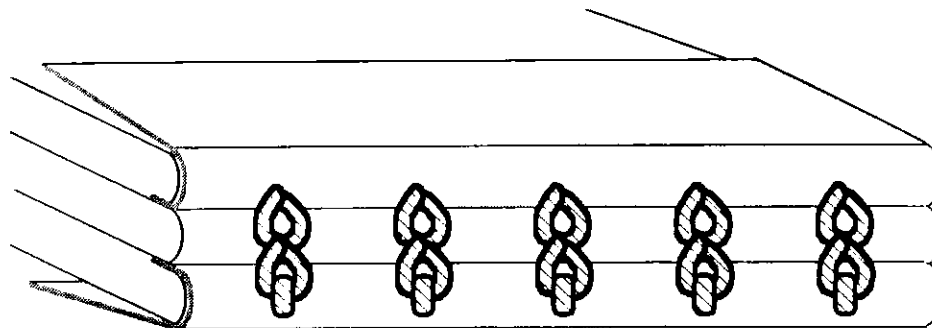


Fig. 18

Sewing structure for a thin book using an unsupported link stitch.

²⁶ The cotton/linen blended bookcloth produced in Germany by Bamberger Kaliko and distributed in America as Sail Cloth 402 by Whitman Products Ltd. (21 Brayton Street, West Warwick, RI 02893) is preferred by this author.

²⁷ Douglas Cockerell, *Bookbinding, and the Care of Books: A Handbook for Amateurs, Bookbinders, and Librarians* (New York: D. Appleton and Company, 1901), 177-78. (Fig. 19).

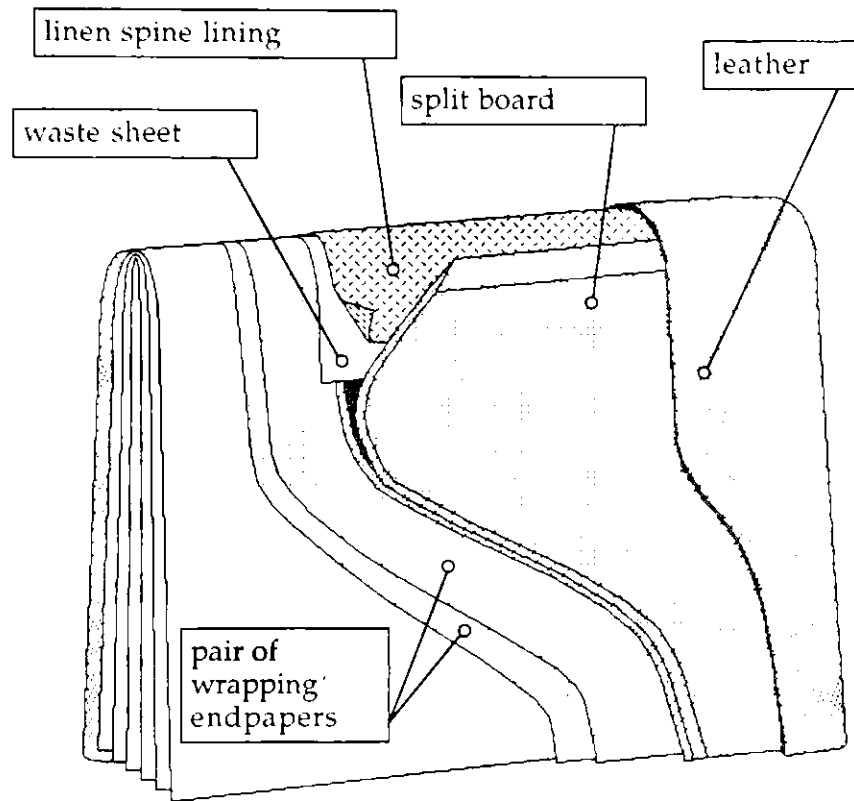


Fig. 19
Cockerell binding for very thin books: 1901

²⁸ Macintosh SE and LaserWriter Plus are products of Apple Computer, Inc. (20525 Mariani Avenue, Cupertino, CA 95014).

²⁹ The Moriki papers are available from: Andrews/Nelson/Whitehead Corporation (31-10 48th Avenue, Long Island City, NY 11101), Paper Source (730 North Franklin, Suite 111, Chicago, IL 60610), and, under the name "Dyed Paper," from Aiko's Art Material Import (714 North Wabash Avenue, Chicago, IL 60611).

³⁰ SuperPaint is a software product of Silicon Beach Software, Inc. (P. O. Box 261430, San Diego, CA 92126).

³¹ Klucel-g is a hydroxypropylcellulose, an alcohol-soluble paper coating available from Hercules Incorporated (Water-Soluble Polymers, Worldwide Business Center, Wilmington, DE 19899).

³² Henry Pedersen, "A Method for Fastening Single Leaves Together for Binding into Volumes," *Restaurator* 2, no. 2 (1975): 61-63.